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AMENDED CLAIM SET:

- 1. 8. (cancelled).
- 9. (previously presented) An acid-responsive compound represented by the following formula (2d) or (2e):

wherein R³ represents a hydrogen atom or a methyl group; R⁴ represents an oxygen-containing group selected from the group consisting of oxo groups, hydroxyl groups, alkoxy groups, carboxyl groups, alkoxycarbonyl groups, cycloalkyloxycarbonyl groups, aryloxycarbonyl groups, aralkyloxycarbonyl groups, hydroxymethyl groups, carbamoyl groups, N-substituted carbamoyl groups, and nitro groups.

- 10. (currently amended) A photoresist resin composition comprising
- (i) a polymer having at least one unit corresponding to the acid-responsive compound of formula (1a) or (2a) as defined in Claim 17 (1a-1), (1a-2), or (2a-1) as defined in Claim 1 or of formula (2d) or (2e) as defined in Claim 9 and
 - (ii) a photoactive acid precursor.
 - 11. (cancelled).

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- 12. (previously presented) The photoresist resin composition according to Claim 10, which contains 0.1 to 30 parts by weight of the photoactive acid precursor (ii) relative to 100 parts by weight of the polymer (i).
- 13. (previously presented) The photoresist resin composition according to Claim 10, wherein the polymer is a copolymer.
- 14. (previously presented) A method of forming a pattern, which method comprises

subjecting a layer comprising the photoresist resin composition of Claim 10 formed on a substrate to pattern exposure and

developing the exposed coating layer to form a pattern.

15. (currently amended) The acid-responsive compound of <u>Claim 17</u> elaim 1, having the following formula (1a-1)

$$\begin{array}{cccc}
O & R^{3} \\
O - C & - C = CH_{2} \\
R^{1} - C - R^{2} \\
C & R^{4}
\end{array}$$
(1a-1)

in which wherein R¹ is isopropyl, R² is methyl, R³ is hydrogen, and R⁴ is hydroxy, namely, <u>1-hydroxy-3-[(1-acryloyloxy-1-isopropyl-1-methyl)methyl]adamantane</u> 1-hydroxy-3-(1-acryloyloxy-1,2-dimethylpropyl)adamantine.

- 16. (currently amended) The acid-responsive compound of <u>Claim elaim</u> 9, having the formula (2e) in which R³ is hydrogen and R⁴ is hydroxy, namely, 2-hydroxy-6-acryloyloxy-tricyclo[5.2.1.0^{2,6}]decane.
- 17. (new) An acid-responsive compound represented by the following formula (1a) or (2a):

wherein R¹ in formula (1a) represents a hydrogen atom, an alkyl group, or a cycloalkyl group; R¹ in the formula (2a) represents an alkyl group or a cycloalkyl group; R² represents an alkyl group or a cycloalkyl group; R¹ and R² may, jointly and together with the adjacent carbon atom, form an alicyclic hydrocarbon ring; R³ represents a hydrogen atom or a methyl group; and each R⁴ independently represents a hydrogen atom, a halogen atom, an alkyl group, an amino group, an N-substituted amino group, or an oxygen-containing group selected from the group consisting of hydroxyl groups, alkoxy groups, carboxyl groups, alkoxycarbonyl groups, cycloalkyloxycarbonyl groups, aryloxycarbonyl groups, aralkyloxycarbonyl groups, hydroxymethyl groups, carbamoyl groups, N-substituted carbamoyl groups, and nitro groups.

18. (new) The acid-responsive compound according to claim 17 having the formula (1a), wherein R¹ is a hydrogen atom; R² is a straight-chain or branched-chain C¹-4 alkyl group; R¹ and R² may, jointly and together with the adjacent carbon atom, form an alicyclic hydrocarbon ring; R³ is a hydrogen atom or a methyl group; and each R⁴ independently is a hydrogen atom or an oxygen-containing group selected from the group consisting of hydroxyl groups, alkoxy groups, carboxyl groups, alkoxycarbonyl groups, cycloalkyloxycarbonyl groups, aryloxycarbonyl groups, aralkyloxycarbonyl groups, hydroxymethyl groups, carbamoyl groups, N-substituted carbamoyl groups, and nitro groups, provided that at least one R⁴ is an oxygen-containing group.

19. (new) The acid-responsive compound according to Claim 17, wherein each R⁴ independently represents a hydrogen group or an oxygen-containing group.

20. (new) The acid-responsive compound according to Claim 17, which is represented by the following formula (1a-1) or (1a-2)

wherein R1 represents a hydrogen atom, an alkyl group, or a cycloalkyl group; R2

$$R^4$$
 C
 $O-C-C=CH_2$

(2a-1)

represents an alkyl group or a cycloalkyl group; R¹ and R² may, jointly and together with the adjacent carbon atom, form an alicyclic hydrocarbon ring; R³ represents a hydrogen atom or a methyl group; and R⁴ represents an oxygencontaining group, and in formula (1a-2), the two R⁴ substituents may be the same as or different from one another, or is represented by the following formula (2a-1) wherein R¹ represents an alkyl group or a cycloalkyl group; R³ represents a hydrogen atom or a methyl group; and R⁴ represents an oxygen-containing group,

wherein the oxygen-containing group R⁴ in formulae (1a-1), (1a-2), and (2a-1) is selected from the group consisting of hydroxyl groups, alkoxy groups, carboxyl groups, alkoxycarbonyl groups, cycloalkyloxycarbonyl groups, aryloxycarbonyl groups, aralkyloxycarbonyl groups, hydroxymethyl groups, carbamoyl groups, N-substituted carbamoyl groups, and nitro groups.